

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A method for storing volatiles under pressure, comprising;
providing a storage apparatus, wherein said storage apparatus includes an outer portion and a foam component, wherein said foam component ~~is contained within~~ fills substantially all of an inner space defined by said outer portion;
connecting said storage apparatus to a source for providing a volatile, whereby said volatile is stored within closed cells of said foam component; and
conducting said volatile from said source into said storage apparatus, whereby release of said volatile from said foam component is restricted by a need for said volatile to diffuse through said closed cells of said foam component.

Claim 2 (Currently Amended): The method of claim 1, wherein said closed cells of said foam component ~~includes closed cells with~~ have low, but nonzero, cell-wall permeability.

Claim 3 (Original): The method of claim 1, wherein said volatile is at least one of a liquid or gas or combination thereof.

Claim 4 (Original): The method of claim 1, wherein said volatile is at least one of ammonia, butane and propane.

Claim 5 (Original): The method of claim 1, wherein at least a portion of a surface of said foam component is sealed.

Claim 6 (Currently Amended): An apparatus for storing volatile compounds, comprising;
an outer portion, said outer portion defining an inner volume; and
a foam component that is non-reactive relative to the volatile, wherein said foam component ~~is contained within~~ fills substantially all of an inner volume defined by said outer portion.

Claim 7 (Original): The apparatus of claim 6, further comprising means for introducing at least one volatile compound into said inner volume.

Claim 8 (Original): The apparatus of claim 6, wherein said foam component includes closed cells.

Claim 9 (Original): The apparatus of claim 6, wherein said outer portion is composed of at least one of a metal, alloy and plastic.

Claim 10 (Original): The apparatus of claim 6, wherein said foam component has a void fraction of about greater than 60%.

Claim 11 (Original): The apparatus of claim 6, further comprising a sealing component disposed upon at least a portion of said foam component.

Claim 12 (Original): The apparatus of claim 6, wherein said foam component is provided with at least one channel.

Claim 13 (Currently Amended): An apparatus for storing volatile compounds using a an inert monolith foam component filling substantially all of an inner space of the apparatus and whose geometry is cylindrical, spherical, or planar.

Claim 14 (Currently amended): The apparatus of claim 13, wherein several such storage apparatuses ~~can be~~ are manifolded together to increase volatile delivery rate, wherein a safe delivery rate of each device is maintained.

Claim 15 (Cancelled).

Claim 16 (Currently amended): An apparatus of claim 14, wherein, said ~~manifoldable devices~~ manifolded apparatuses ~~allow~~ are adapted for charging of volatiles of one or more cartridges or storage apparatus while ~~allowing~~ being adapted for discharge of volatile from one or more other cartridges or storage apparatus.

Claim 17 (Currently amended): An apparatus of claim 14, wherein a ~~provided configuration permits~~ said manifolded apparatuses are adapted for replacement of one or more cartridges or storage apparatus while one or more other cartridges or storage apparatus are delivering volatiles to an end-use system.

Claim 18 (Original): An apparatus of claim 6 wherein said apparatus is air cooled or liquid cooled to improve charging rates.

Claim 19 (Original): An apparatus of claim 6 wherein the apparatus can be air cooled or liquid cooled to improve volatile charging rates.

Claim 20 (Original): The apparatus of claim 17, wherein said end-use system is a hydrogen generator.

Claim 21 (Original): The apparatus of claim 17, wherein said end-use system is a fuel cell power system.

Claim 22 (New): The method of claim 1, wherein said foam component is a monolithic structure.

Claim 23 (New): The method of claim 1, wherein said foam component is of a ceramic foam.

Claim 24 (New): The method of claim 1, wherein said foam component is selected from the group consisting of: alumina ceramic foam, silicon oxycarbide foam, aluminum foam, syntactic foam, glass microspheres with ceramic or cementitious binders, glass foam, ceramic/carbon foam, graphite foam.